

UGITECH



**Qualification Test Record for 1.4462  
bars Ø 20 to 75 mm  
NORSOK M-650**

QTR N° : SMQ 819578

Rev. N° : A

Date : 18/02/2020

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Manufacturer name  
address/Web page:

**UGITECH S.A.**

Avenue Paul Girod, F-73403 UGINE Cedex, France

www.ugitech.com

Reference standard

NORSOK M-650 Rev. 4

Material designation  
and MDS No.:

**Grade and specification: Type 22Cr duplex****STAINLESS STEEL DUPLEX 1.4462 (EN 10088) 22Cr5Ni X2CrNiMoN22-5-3****ASTM A479 Grade UNS S 32205 and UNS S 31803****In compliance with the requirements of NORSOK MDS D47, Rev. 6**

Manufacturing summary  
doc. No.:

Flow chart: Synoptique AF 98

Rev. No.: dated 30/04/2018

Products and  
manufacturing process:

**Melting process:**

Electric arc furnaces

Refining AOD

Continuous cast Heat from UGINE Melting shop

**Hot rolling process:**

Bars diameter Ø 20 to 75 mm

Mandatory conditions  
and sub-contractors:

**Condition:**

TT4 furnaces n° 26 or n° 27 for solution heat treatment

Temperature 1020°C to 1060°C, water + polymer quenching

Time between furnace and quenching ≤ 90 s

Temperature of water + polymer bath ≤ 70°C

Other information:

Qualification expires:

February, 2025

### Tested and Qualified Thickness and Weight

Products and manufacturing process:	Test record No.	Tested thickness mm (bar OD)	Qualified thickness mm (bar OD)	Test bar weight kg	Qualified weight kg
Bars diameter Ø 20 to 75 mm	PRJ1110012761-1/1	75 mm	20 – 75 mm	n/a	n/a

### Qualification/acceptance signatures

Manufacturer:

**UGITECH**Prepared by/Date: **O. MARTEL**  
18/02/2020

Checked by/Date: **G. PELLISSIER**  
18/02/2020

The manufacturer and this QTR are evaluated and found to be in compliance with the requirements of NORSOK M-650 for supply of the above listed products and materials.

*This acceptance does not exempt any purchaser from his responsibility to ensure that this qualification is valid for his products within the essential variables of NORSOK M-650.*

Qualified/Accepted by:


**Lloyd's Register EMEA,  
Tour Swiss Life  
1, boulevard Vivier Merle  
Fr-69443 Lyon cedex 03**

Signature/Date:

Lloyd's Register EMEA 18 FEB 20

T. CUREY  
Lyon Office  
✓ reviewed  
✓ witnessed\*  
□ spot checked



	<b>Qualification Test Record for 1.4462 bars Ø 75,01 to 120 mm NORSOK M-650</b>	QTR N° : SMQ 819579
		Rev. N° : A
		Date : 18/02/2020
		Page : 1 / 8

Manufacturer name address/Web page:	<b>UGITECH S.A.</b> Avenue Paul Girod, F-73403 UGINE Cedex, France      www.ugitech.com	
Reference standard	NORSOK M-650 Rev. 4	
Material designation and MDS No.:	<b>Grade and specification: Type 22Cr duplex</b>  <b>STAINLESS STEEL DUPLEX 1.4462 (EN 10088) 22Cr5Ni X2CrNiMoN22-5-3</b>  <b>ASTM A479 Grade UNS S 32205 and UNS S 31803</b>  <b>In compliance with the requirements of NORSOK MDS D47, Rev. 6</b>	
Manufacturing summary doc. No.:	Flow chart: <u>Synoptique AF 98</u>	Rev. No.: dated 30/04/2018
Products and manufacturing process:	<u>Melting process:</u> Electric arc furnaces Refining AOD Continuous cast Heat from Ugine Melting shop  <u>Hot rolling process:</u> Bars diameter Ø 75,01 to 120 mm	
Mandatory conditions and sub-contractors:	<u>Condition:</u> TT4 furnaces n° 26 or n° 27 for solution heat treatment Ø > 75 mm : temperature 1090°C to 1130°C, water quenching Time between furnace and quenching ≤ 90 s Temperature of water bath ≤ 50°C	
Other information:		
Qualification expires:	February, 2025	


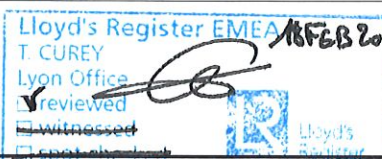
### Tested and Qualified Thickness and Weight

Products and manufacturing process:	Test record No.	Tested thickness mm (bar OD)	Qualified thickness mm (bar OD)	Test bar weight kg	Qualified weight kg
Bars diameter Ø 75,01 to 120 mm	SMQ 4780 rev. C	115 mm	75,01 - 120 mm	n/a	n/a

### Qualification/acceptance signatures

Manufacturer:  <b>UGITECH</b>	Prepared by/Date: <b>O.MARTEL</b> 18/02/2020 	Checked by/Date: <b>G. PELLISSIER</b> 18/02/2020 
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Qualified/Accepted by: <b>Lloyd's Register EMEA,</b> <b>Tour Swiss Life</b> <b>1, boulevard Vivier Merle</b> <b>Fr-69443 Lyon cedex 03</b>	Signature/Date:  <b>18 FEB 20</b>	
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